

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application:

1. (Currently amended) An exercising apparatus comprising:

at least one motion unit including a moving unit installed at one end thereof with a hinge unit rotatably fixed; and an up-and-down reciprocating unit connected with the other end of the moving unit, the up-and-down reciprocating unit reciprocating upward and downward and making the moving unit rotate in an angular interval; and

a driving unit connected with the up-and-down reciprocating unit of the motion unit, the driving unit driving the up-and-down reciprocating unit to reciprocate upward and downward;

wherein a pair of the motion units are arranged in a longitudinal direction thereof, and the hinge units of the pair of the motion units face each other;

wherein the up-and-down reciprocating unit comprises:

a driving unit connecting shaft to which rotating force is transmitted from the driving unit;

an eccentric rotary shaft eccentrically connected with the driving unit connecting shaft; and

at least one link unit, one end of the link unit hingedly connected with the other end of the moving unit, and the other end of the link unit rotatably connected with the eccentric rotary shaft;

wherein the driving unit is a motor having a pair of driving shafts respectively at ends of the motor, the respective driving shafts are connected with the driving unit connecting shafts of the respective motion units by a rotation transmitting unit; and

wherein further, the rotation transmitting unit comprises pulleys respectively connected with the driving shaft and the concentric shaft and a belt connecting the pulleys.

2. (Currently amended) ~~The exercising apparatus of claim 1,~~ An exercising

apparatus comprising:

at least one motion unit including a moving unit installed at one end thereof with a hinge unit rotatably fixed; and an up-and-down reciprocating unit connected with the other end of the moving unit, the up-and-down reciprocating unit reciprocating upward and downward and making the moving unit rotate in an angular interval; and

a driving unit connected with the up-and-down reciprocating unit of the motion unit, the driving unit driving the up-and-down reciprocating unit to reciprocate upward and downward;

wherein a pair of the motion units are arranged in a longitudinal direction thereof, and the hinge units of the pair of the motion units face each other; and

wherein the up-and-down reciprocating unit comprises:

a concentric shaft rotatably supported by a shaft supporting bracket; an eccentric rotary shaft connected with at least one end of the concentric shaft, the eccentric rotary shaft being eccentric from the rotation center of the concentric shaft; and a link unit, one end of the link unit rotatably connected with the eccentric rotary shaft and the other end of the link unit hingedly connected with the moving unit, and

the driving unit is connected with one of the concentric shaft and the eccentric rotary shaft in order to transmit rotation thereto.

3. (Currently amended) ~~The exercising apparatus of claim 1,~~ An exercising apparatus comprising:

at least one motion unit including a moving unit installed at one end thereof with a hinge unit rotatably fixed; and an up-and-down reciprocating unit connected with the other end of the moving unit, the up-and-down reciprocating unit reciprocating upward and downward and making the moving unit rotate in an angular interval; and

a driving unit connected with the up-and-down reciprocating unit of the motion unit, the driving unit driving the up-and-down reciprocating unit to reciprocate upward and downward;

wherein a pair of the motion units are arranged in a longitudinal direction thereof, and the hinge units are arranged in the respective ends of the pair of the motion units;

wherein the up-and-down reciprocating unit comprises:

a driving unit connecting shaft to which rotating force is transmitted from the driving unit;

an eccentric rotary shaft eccentrically connected with the driving unit connecting shaft; and

at least one link unit, one end of the link unit hingedly connected with the other end of the moving unit, and the other end of the link unit rotatably connected with the eccentric rotary shaft;

wherein the driving unit is a motor having a pair of driving shafts respectively at ends of the motor, the respective driving shafts are connected with the driving unit connecting shafts of the respective motion units by a rotation transmitting unit; and

wherein the rotation transmitting unit comprises pulleys respectively connected with the driving shaft and the concentric shaft and a belt connecting the pulleys.

4. (Cancelled)

5. (Currently amended) The exercising apparatus of claim [[4]] 1, wherein the up-and-down reciprocating units of the respective motion units are coupled with each other by a motion coupling unit restricting an angular difference between the respective eccentric rotary shafts and restricting up-and-down motion of each link unit.

6. (Withdrawn) The exercising apparatus of claim 5, wherein the motion coupling unit is a link member of which one end is rotatably connected with the eccentric rotary shaft or the driving unit connecting shaft of one of the pair of motion units, and the other end of which is rotatably connected with the eccentric rotary shaft or the driving unit connecting shaft of the other motion unit.

7. (Original) The exercising apparatus of claim 5, wherein the motion coupling unit comprises pulleys respectively connected with the driving unit connecting shafts of the pair of the motion units, and a belt connecting the pulleys.

8. (Original) The exercising apparatus of claim 7, wherein the pulleys have an outer surface having tooth structure, and the belt has an inner surface having tooth structure corresponding to the tooth structure of the pulleys.

9. (Withdrawn) The exercising apparatus of claim 4, wherein the eccentric rotary shaft is connected with a balance weight having a center of weight in an angular difference of 180° from the center of the eccentric rotary shaft centering the rotation center of the eccentric rotary shaft, and

the motion coupling unit comprises a connecting pin installed on the balance weight having an angular difference of 180° from the center of the eccentric rotary shaft centering the rotation center of the eccentric rotary shaft, and a link member rotatably connected with the connecting pins.

10. (Currently amended) The exercising apparatus of claim ~~[[4]]~~ 1, wherein both ends of the eccentric rotary shaft are respectively connected to a pair of concentric shafts having the same center.

11. (Original) The exercising apparatus of claim 10, wherein the pair of concentric shafts are rotatably supported by a shaft supporting bracket.

12. (Original) The exercising apparatus of claim 10, wherein one end of any one of the pair of the concentric shafts is further connected with a balance weight eccentrically from the concentric shaft.

13-43. (Canceled)

44. (Cancelled),

45. (Currently amended) The exercising apparatus of claim ~~[[44]]~~ 3, wherein the up-and-down reciprocating units of the respective motion units are coupled with each other by a motion coupling unit restricting an angular difference between the respective eccentric rotary shafts and restricting up-and-down motion of each link unit.

46. (Withdrawn) The exercising apparatus of claim 45, wherein the motion coupling unit is a link member of which one end is rotatably connected with the eccentric rotary shaft or the driving unit connecting shaft of one of the pair of motion units, and the other end of which is rotatably connected with the eccentric rotary shaft or the driving unit connecting shaft of the other motion unit.

47. (Previously presented) The exercising apparatus of claim 45, wherein the motion coupling unit comprises pulleys respectively connected with the driving unit

connecting shafts of the pair of the motion units, and a belt connecting the pulleys.

48. (Previously presented) The exercising apparatus of claim 47, wherein the pulleys have an outer surface having tooth structure, and the belt has an inner surface having tooth structure corresponding to the tooth structure of the pulleys.

49. (Withdrawn) The exercising apparatus of claim 44, wherein the eccentric rotary shaft is connected with a balance weight having a center of weight in an angular difference of 180° from the center of the eccentric rotary shaft centering the rotation center of the eccentric rotary shaft, and

the motion coupling unit comprises a connecting pin installed on the balance weight having an angular difference of 180° from the center of the eccentric rotary shaft centering the rotation center of the eccentric rotary shaft, and a link member rotatably connected with the connecting pins.

50. (Currently amended) The exercising apparatus of claim ~~[[44]]~~ 3, wherein both ends of the eccentric rotary shaft are respectively connected to a pair of concentric shafts having the same center.

51. (Previously presented) The exercising apparatus of claim 50, wherein the pair of concentric shafts are rotatably supported by a shaft supporting bracket.

52. (Previously presented) The exercising apparatus of claim 50, wherein one end of any one of the pair of the concentric shafts is further connected with a balance weight eccentrically from the concentric shaft.

53. (Currently amended) The exercising apparatus of claim ~~[[2]]~~ 1, wherein the eccentric rotary shafts of the pair of the motion units have an angular difference of $0^\circ\sim 180^\circ$ with each other.

54. (Previously presented) The exercising apparatus of claim 3, wherein the eccentric rotary shafts of the pair of the motion units have an angular difference of $0^\circ\sim 180^\circ$ with each other.

55. (Currently amended) The exercising apparatus of claim ~~[[2]]~~ 1, wherein the number of the link unit is two.

56. (Previously presented) The exercising apparatus of claim 3, wherein the

number of the link unit is two.

57. (Currently amended) The exercising apparatus of claim [[2]] 1, wherein the driving unit connecting shaft is connected with a driving shaft of the driving unit by a rotation transmitting unit, the rotation transmitting unit transmitting rotation from the driving unit to the driving unit connecting shaft.

58. (Previously presented) The exercising apparatus of claim 57, wherein the rotation transmitting unit comprises:

- a driving pulley connected with the driving shaft;
- a slave pulley connected with the driving unit connecting shaft; and
- a belt connecting the driving pulley with the slave pulley.

59. (Previously presented) The exercising apparatus of claim 58, wherein outer surfaces of the driving pulley and the slave pulley have a tooth structure, and an inner surface of the belt has a tooth structure corresponding to the tooth structure of the driving pulley and the slave pulley.

60. (Previously presented) The exercising apparatus of claim 3, wherein the driving unit connecting shaft is connected with a driving shaft of the driving unit by a rotation transmitting unit, the rotation transmitting unit transmitting rotation from the driving unit to the driving unit connecting shaft.

61. (Previously presented) The exercising apparatus of claim 60, wherein the rotation transmitting unit comprises:

- a driving pulley connected with the driving shaft;
- a slave pulley connected with the driving unit connecting shaft; and
- a belt connecting the driving pulley with the slave pulley.

62. (Withdrawn) The exercising apparatus of claim 61, wherein outer surfaces of the driving pulley and the slave pulley have a tooth structure, and an inner surface of the belt has a tooth structure corresponding to the tooth structure of the driving pulley and the slave pulley.

63. (Withdrawn) The exercising apparatus of claim 2, wherein two pairs of the motion units are arranged in two rows.

64. (Withdrawn) The exercising apparatus of claim 63, wherein the moving units of the motion units positioned in the same side have any one of up-and-down motions of a motion of crossing each other, a motion of equal motion and an irregular motion.

65. (Withdrawn) The exercising apparatus of claim 63, wherein the respective eccentric rotary shafts of the motion units have an angular difference of $0^{\circ}\sim 180^{\circ}$ with the facing eccentric rotary shaft.

66. (Withdrawn) The exercising apparatus of claim 65, wherein the center of the first eccentric shaft has an angular difference of $0^{\circ}\sim 180^{\circ}$ with the center of the second eccentric shaft centering the rotation center of the main rotary shaft.

67. (Withdrawn) The exercising apparatus of claim 3, wherein two pairs of the motion units are arranged in two rows.

68. (Withdrawn) The exercising apparatus of claim 67, wherein the moving units of the motion units positioned in the same side have any one of up-and-down motions of a motion of crossing each other, a motion of equal motion and an irregular motion.

69. (Withdrawn) The exercising apparatus of claim 67, wherein the respective eccentric rotary shafts of the motion units have an angular difference of $0^{\circ}\sim 180^{\circ}$ with the facing eccentric rotary shaft.

70. (Withdrawn) The exercising apparatus of claim 69, wherein the center of the first eccentric shaft has an angular difference of $0^{\circ}\sim 180^{\circ}$ with the center of the second eccentric shaft centering the rotation center of the main rotary shaft.

71. (Withdrawn) The exercising apparatus of claim 2, wherein the driving unit is positioned at a center portion of the pair of the motion units, and a driving shaft of the driving unit is connected with the driving unit connecting shaft by a rotation transmitting unit.

72. (Withdrawn) The exercising apparatus of claim 71, wherein the rotation transmitting unit comprises a belt, a chain or a link member.

73. (Withdrawn) The exercising apparatus of claim 71, wherein the rotation transmitting unit comprises:

a main rotary shaft connected with the driving shaft;

a main shaft supporting bracket rotatably supporting the main rotary shaft;
first eccentric shaft connected with the main rotary shaft, the first eccentric shaft having a center eccentric from the rotation center of the main rotary shaft;
second eccentric shaft having a center eccentric from the rotation center of the main rotary shaft; and
first link member and second link member, wherein the respective ends of the first link member are respectively connected with the first eccentric shaft and the eccentric rotary shaft of one of the motion unit and the respective ends of the second link member are respectively connected with the second eccentric shaft and the eccentric rotary shaft of the other motion unit.

74. (Withdrawn) The exercising apparatus of claim 3, wherein the driving unit is positioned at a center portion of the pair of the motion units, and a driving shaft of the driving unit is connected with the driving unit connecting shaft by a rotation transmitting unit.

75. (Withdrawn) The exercising apparatus of claim 74, wherein the rotation transmitting unit comprises a belt, a chain or a link member.

76. (Withdrawn) The exercising apparatus of claim 74, wherein the rotation transmitting unit comprises:

a main rotary shaft connected with the driving shaft;
a main shaft supporting bracket rotatably supporting the main rotary shaft;
first eccentric shaft connected with the main rotary shaft, the first eccentric shaft having a center eccentric from the rotation center of the main rotary shaft;
second eccentric shaft having a center eccentric from the rotation center of the main rotary shaft; and
first link member and second link member, wherein the respective ends of the first link member are respectively connected with the first eccentric shaft and the eccentric rotary shaft of one of the motion unit and the respective ends of the second link member are respectively connected with the second eccentric shaft and the eccentric rotary shaft of the other motion unit.

77. (Withdrawn) The exercising apparatus of claim 1, wherein a pair of the driving units are respectively connected to the driving unit connecting shafts of the motion units.

78. (Withdrawn) The exercising apparatus of claim 2, wherein a pair of the driving units are respectively connected to the driving unit connecting shafts of the motion units.

79. (Withdrawn) The exercising apparatus of claim 3, wherein a pair of the driving units are respectively connected to the driving unit connecting shafts of the motion units.

80. (Withdrawn) The exercising apparatus of claim 1, wherein a pair of the motion units are arranged in parallel to each other.

81. (Withdrawn) The exercising apparatus of claim 80, wherein the up-and-down reciprocating unit comprises:

- a driving unit connecting shaft being transmitted with rotation force from the driving unit;

- an eccentric rotary shaft eccentrically connected with the driving unit connecting shaft; and

- at least one link unit, one end of the link unit hingedly connected with the other end of the moving unit, and the other end of the link unit rotatably connected with the eccentric rotary shaft.

82. (Withdrawn) The exercising apparatus of claim 81, wherein the number of the link unit is two.

83. (Withdrawn) The exercising apparatus of claim 81, wherein the driving unit connecting shaft is connected with a driving shaft of the driving unit by a rotation transmitting unit, the rotation transmitting unit transmitting rotation force from the driving unit to the driving unit connecting shaft.

84. (Withdrawn) The exercising apparatus of claim 81, wherein the rotation transmitting unit comprises any one of a coupler, a combination of a belt and pulleys, chain and crank.

85. (Withdrawn) The exercising apparatus of claim 81, wherein both ends of the eccentric rotary shaft are respectively connected to a pair of concentric shafts having the same center.

86. (Withdrawn) The exercising apparatus of claim 85, wherein the pair of the concentric shafts are rotatably supported by a shaft supporting bracket.

87. (Withdrawn) The exercising apparatus of claim 81, wherein the driving unit is connected with the driving unit connecting shaft of any one of the pair of motion units, and

the up-and-down reciprocating unit of the motion unit connected with the driving unit is connected with the driving unit connecting shaft of the up-and-down reciprocating unit of the other motion unit by a connection shaft.

88. (Withdrawn) The exercising apparatus of claim 1, wherein the up-and-down reciprocating unit comprises:

a concentric shaft rotatably supported by a shaft supporting bracket; an eccentric rotary shaft connected with at least one end of the concentric shaft, the eccentric rotary shaft being eccentric from the rotation center of the concentric shaft; and a link unit, one end of the link unit rotatably connected with the eccentric rotary shaft and the other end of the link unit hingedly connected with the moving unit, and

the driving unit is connected with one of the concentric shaft and the eccentric rotary shaft in order to transmit rotation thereto.

89. (Withdrawn) The exercising apparatus of claim 88, wherein a driving shaft of the driving unit is connected with the concentric shaft by a rotation transmitting unit, and the rotation transmitting unit transmits rotation force from the driving shaft to the concentric shaft.

90. (Withdrawn) The exercising apparatus of claim 89, wherein the rotation transmitting unit comprises pulleys respectively connected with the driving shaft and the concentric shaft and a belt connecting the pulleys.

91. (Withdrawn) The exercising apparatus of claim 88, wherein a driving shaft of the driving unit is connected with the eccentric rotary shaft by a coupler.

92. (Withdrawn) The exercising apparatus of claim 2, wherein the up-and-down reciprocating unit comprises:

a concentric shaft rotatably supported by a shaft supporting bracket; an eccentric rotary shaft connected with at least one end of the concentric shaft, the eccentric rotary shaft being eccentric from the rotation center of the concentric shaft; and a link unit, one end of the link unit rotatably connected with the eccentric rotary shaft and the other end of the link unit hingedly connected with the moving unit, and

the driving unit is connected with one of the concentric shaft and the eccentric rotary shaft in order to transmit rotation thereto.

93. (Withdrawn) The exercising apparatus of claim 92, wherein a driving shaft of the driving unit is connected with the concentric shaft by a rotation transmitting unit, and the rotation transmitting unit transmits rotation force from the driving shaft to the concentric shaft.

94. (Withdrawn) The exercising apparatus of claim 93, wherein the rotation transmitting unit comprises pulleys respectively connected with the driving shaft and the concentric shaft and a belt connecting the pulleys.

95. (Withdrawn) The exercising apparatus of claim 92, wherein a driving shaft of the driving unit is connected with the eccentric rotary shaft by a coupler.

96. (Withdrawn) The exercising apparatus of claim 3, wherein the up-and-down reciprocating unit comprises:

a concentric shaft rotatably supported by a shaft supporting bracket; an eccentric rotary shaft connected with at least one end of the concentric shaft, the eccentric rotary shaft being eccentric from the rotation center of the concentric shaft; and a link unit, one end of the link unit rotatably connected with the eccentric rotary shaft and the other end of the link unit hingedly connected with the moving unit, and

the driving unit is connected with one of the concentric shaft and the eccentric rotary shaft in order to transmit rotation thereto.

97. (Withdrawn) The exercising apparatus of claim 96, wherein a driving shaft of the driving unit is connected with the concentric shaft by a rotation transmitting unit, and

the rotation transmitting unit transmits rotation force from the driving shaft to the concentric shaft.

98. (Withdrawn) The exercising apparatus of claim 97, wherein the rotation transmitting unit comprises pulleys respectively connected with the driving shaft and the concentric shaft and a belt connecting the pulleys.

99. (Withdrawn) The exercising apparatus of claim 96, wherein a driving shaft of the driving unit is connected with the eccentric rotary shaft by a coupler.

100. (Cancelled)

101. (Currently amended) The exercising apparatus of claim [[100]]2, wherein a driving shaft of the driving unit is connected with the concentric shaft by a rotation transmitting unit, and the rotation transmitting unit transmits rotation force from the driving shaft to the concentric shaft.

102. (Previously presented) The exercising apparatus of claim 101, wherein the rotation transmitting unit comprises pulleys respectively connected with the driving shaft and the concentric shaft and a belt connecting the pulleys.

103. (Currently amended) The exercising apparatus of claim [[100]]2, wherein a driving shaft of the driving unit is connected with the eccentric rotary shaft by a coupler.

104. (Cancelled)

105. (Cancelled)

106. (Cancelled)

107. (Cancelled)

108. (Withdrawn) The exercising apparatus of claim 57, wherein the driving unit is a motor having a pair of driving shafts respectively at ends of the motor, the respective driving shafts are connected with the driving unit connecting shafts of the respective motion units by a rotation transmitting unit.

109. (Withdrawn) The exercising apparatus of claim 108, wherein the rotation transmitting unit comprises pulleys respectively connected with the driving shaft and the concentric shaft and a belt connecting the pulleys.

110. (Withdrawn) The exercising apparatus of claim 1, wherein the hinge unit is

installed between a center portion of the moving unit and one end of the moving unit.

111. (Withdrawn) The exercising apparatus of claim 2, wherein the hinge unit is installed between a center portion of the moving unit and one end of the moving unit.

112. (Withdrawn) The exercising apparatus of claim 3, wherein the hinge unit is installed between a center portion of the moving unit and one end of the moving unit.

113. (Withdrawn) The exercising apparatus of claim 57, wherein the hinge unit is installed between a center portion of the moving unit and one end of the moving unit.

114. (Withdrawn) The exercising apparatus of claim 63, wherein the up-and-down reciprocating unit comprises a concentric shaft rotatably supported by a shaft supporting bracket; a pair of eccentric rotary shafts respectively connected with ends of the concentric shaft, the pair of eccentric rotary shafts being eccentric from a rotation center of the concentric shaft; and a pair of link units, one end of the link unit rotatably connected with the eccentric rotary shaft and the other end of the link unit hingedly connected with the moving unit, and

the driving unit is connected with one of the concentric shaft and the eccentric rotary shaft for transmitting rotation force thereto.

115. (Withdrawn) The exercising apparatus of claim 114, wherein a driving shaft of the driving unit and the concentric shaft are connected with each other by a combination of a belt and pulleys.

116. (Withdrawn) The exercising apparatus of claim 114, wherein the pair of the eccentric rotary shafts have an angular difference of $0^{\circ}\sim 180^{\circ}$ with each other.

117. (Withdrawn) The exercising apparatus of claim 67, wherein the up-and-down reciprocating unit comprises a concentric shaft rotatably supported by a shaft supporting bracket; a pair of eccentric rotary shafts respectively connected with ends of the concentric shaft, the pair of eccentric rotary shafts being eccentric from a rotation center of the concentric shaft; and a pair of link units, one end of the link unit rotatably connected with the eccentric rotary shaft and the other end of the link unit hingedly connected with the moving unit, and

the driving unit is connected with one of the concentric shaft and the eccentric

rotary shaft for transmitting rotation force thereto.

118. (Withdrawn) The exercising apparatus of claim 117, wherein a driving shaft of the driving unit and the concentric shaft are connected with each other by a combination of a belt and pulleys.

119. (Withdrawn) The exercising apparatus of claim 117, wherein the pair of the eccentric rotary shafts have an angular difference of $0^{\circ}\sim 180^{\circ}$ with each other.